

IV. Remarks.

The Examiner entered the following rejections.

1. Claims 1-10, 13-22, 28-31 are rejected under 35 USC 102(e) as being anticipated by Baranda et al. 6,739,433 B1.

The Applicant disagrees with the Examiner's overbroad interpretation of the meaning of the term "rib". Only through the overbroad interpretation does the Examiner extract a teaching from the cited art that is not justified in the facts or law.

The analysis with respect to anticipation requires that a strict standard be satisfied. The standard extends beyond simply identifying elements in the reference that are then compared to the claim, it requires that every element be present arranged as in the claim.

Rejection for anticipation or lack of novelty requires, as the first step in the inquiry, that all the elements of the claimed invention be described in a single reference. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed.Cir.), cert. denied, 493 U.S. 853, 110 S.Ct. 154, 107 L.Ed.2d 112 (1989). An invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. Perkin-Elmer Corp v. Computervision Corp., 732 F.2d at 894, 221 USPQ at 673 (Fed.Cir.); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771-72, 218 USPQ 781, 789 (Fed.Cir.1983), cert. denied, 465 U.S. 1026, 104 S.Ct. 1284, 79 L.Ed.2d 687 (1984). The identical invention must be shown in as complete detail as is contained in the patent claim. Jamesbury Corp. v. Litton Industrial Products, Inc., 756 F.2d at 1560, 225 USPQ at 256 (Fed.Cir.).

As to claims 1, 13, and 28, Applicant respectfully directs the Examiner to Fig. 1 of the application. According to Fig. 1 the rib angle (α) is a measurement of the relationship of the sides of the rib. Fig. 5 of Baranda only illustrates a relationship between an outer round covering (88) of adjacent tension members (92). Baranda does not teach a belt having ribs. Baranda only teaches that the surface (88) is convex and contoured, col. 7, lines 41-47. There is no mention of a "rib" or of a rib structure. Therefore, Applicant disagrees with the Examiner's argument because Baranda does not teach an angle for a ribbed profile as claimed.

In the art the term "rib" refers to a v-shaped protrusion that extends in an endless direction on a belt. Included in the attached IDS are excerpts from the Rubber Manufacturers Association Engineering Standard RMA IP-26 ("Standard") which contains industry standard specifications for V-Ribbed Belts and Pulleys. Part 2 of the Standard contains the specification for J, K, L and M Cross Sections for v-ribbed belts.

First, page 1 of the Standard describes a V-Ribbed Belt as comprising:

"a...belt with a longitudinally ribbed traction surface which engages and grips, by friction, pulley grooves of similar shape so that the belt ribbed surface fits the pulley grooves to make substantially total contact."

On page 17 of the Standard, Figure 4A illustrates a "V-Ribbed Belt Cross Section". A rib in Figure 4A is disposed between the reference lines " S_g ". The rib has a substantially planar side for engaging a pulley groove. The undersigned represents that no round profile ribs are described in the omitted portions of the Standard.

On page 19, Table 6A, col. 4, of the Standard specifies a groove angle α of 40° . Per the foregoing quote the belt rib angle and the pulley groove angle are substantially identical, namely, 40° . There is no teaching in the Standard relating to a 90° rib angle.

Further, in the book "Belt Selection and Application for Engineers" by Wallace D. Erickson, attached, on page 10 and in Figure 9, a V-ribbed belt is described as "a flat belt with V-shaped ribs projecting from the bottom of the belt which guide the belt and make it more stable than a flat belt (see Figure 9)." Figure 9 on page 12 of the book illustrates the planar aspect of the sides of the ribs.

Further reference is made to a plurality of patents relating to v-ribbed belts, all of which illustrate ribs having planar sides as well as extending in a belt endless direction. For example, the Examiner is referred to the following selection of US patents contained in the attached IDS:

US 6,419,605; Fig. 2, ribs 3.

US 6,177,202; Fig. 1, v-shaped ribs 20.

US 5,230,668; Fig. 2, ribs 58, 60, 62.

US 5,704,862; Fig. 2, longitudinal ribs 14.

US 4,773,895; Fig. 2, v-ribs 18.

US 6,361,462; Fig. 1, lengthwise v-shaped ribs 32.

US 5,624,338; Fig. 3, v-shaped ribs 56.

Each of these, as well as several others that are readily available, illustrate that in the relevant art the term "rib" is used in reference to v-ribbed belts to describe a feature having substantially planar sides and that extend in an endless or longitudinal direction on the belt.

Baranda cannot properly anticipate a claim directed to a ribbed profile since it does not teach a rib as the term is understood in the art and as used in the claim. Biranda only teaches a curved or circular profile on a flat belt. Hence, Baranda does not literally teach a ribbed belt having the claimed rib angle and therefore the 102 rejection cannot stand.

Applicant respectfully requests that this rejection be withdrawn as to all claims.

2. Claims 1-10, 13-22, 28-31 are rejected under 35 USC 102(e) as being anticipated by “Sizing up V-ribbed Belts” by Gary Porter.

As to claims 1, 13 and 28, Porter does not disclose the claimed invention because page 2 of Porter as cited by the Examiner generally describes a v-ribbed belt but gives no teaching of the advantageous claimed rib angle of approximately 90°. The first paragraph of page 5 of the Porter reference states:

“V-ribbed belts vary dimensionally. Common industrial sizes as designated J through M, the smallest cross sections being J sections, and the largest, M.”

In the art sizes J, K, L, and M refer to standardized v-ribbed belt profiles. As per the argument above, Standard RMA IP-26, Figure 4A identifies ribs with cross-sections J, K, L, M as having planar sides and a rib angle of 40°.

The claimed rib angle is approximately 90°, therefore, the Porter reference cannot anticipate.

3. Claims 1-26 and 28-31 are rejected under 35 USC 103(a) as being unpatentable over Schroder-Brumloop et al 6,138,799 (S-B) in view of Robar et al. 6,633,159.

A rejection based on 35 U.S.C. § 103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under § 103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. This is because obviousness is not established by combining the basic disclosures of the prior art to produce the claimed invention absent a teaching or suggestion that the combination be made. Interconnect Planning Corp. v. Fiel, 774 F.2d 1132, 1143, 227 U.S.P.Q. (BNA) 543, 551 (Fed. Cir. 1985); In Re Corkhill, 771 F.2d 1496, 1501-02, 226 U.S.P.Q. (BNA) 1005, 1009-10 (Fed. Cir. 1985). The relevant analysis invokes a cornerstone principle of patent law:

That all elements of an invention may have been old (the normal situation), or some old and some new, or all new, is . . . simply irrelevant. Virtually all inventions are combinations and virtually all are combinations of old elements. Environmental Designs v. Union Oil Co. of Cal., 713 F.2d 693, 698 (Fed. Cir. 1983) (other citations omitted).

A patentable invention . . . may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose without producing anything beyond the results inherent in their use. American Hoist & Derek Co. v. Sowa & Sons, Inc., 220 U.S.P.Q. (BNA) 763, 771 (Fed. Cir. 1984) (emphasis in original, other citations omitted).

As the Court of Appeals for the Federal Circuit recently noted, “[w]hen a rejection depends upon a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.” Ecolochem, Inc. v. Southern Calif. Edison, 56 U.S.P.Q. 2d 1065, 1073 (Fed. Cir. 2000). There must be a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. In re Dembiczkak, 175 F.3d 994, 999 (Fed. Cir. 1999). This is because “combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability.” Id. Accordingly, to establish a rejection under 35 U.S.C. § 103, a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but also some motivation to combine the prior art teachings in the particular manner claimed. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000). In other words, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

As noted in Applicant’s prior submission, as to claims 1, 13, 26, 28 neither S-B nor Robar teaches a ribbed profile having a rib angle. More particularly, Fig. 4 of S-B teaches a belt having *teeth*, each tooth extending across (or parallel to) the width of the toothed belt 44, col. 3, lines 19-25. Robar teaches only a flat belt, see Fig. 1, and therefore does not teach ribs.

“Teeth” (or “toothed”) and “rib” each have distinct and known meanings in the art. They are not equivalent. They are not equivalent because “teeth” and “ribs” are disposed at right angles relative to each other as used on a belt. Therefore, they are not interchangeable in any service situation. By extension, toothed belts and v-ribbed belts are not interchangeable in any type of service.

More particularly, “teeth” extend across a belt width, from side to side, as shown and described in Roos & Oman on page 2 of “Trends in Power Transmission: The Synchronous Belt”. Teeth are used on synchronous belts and can be used for timing rotating sprockets, for example, between a crankshaft and a camshaft for timing an engine. Teeth may also be referred to as “cogs”. The toothed belt may only operate trained between sprockets. Sprockets have cooperating grooves and teeth for meshing with the toothed belt. S-B only teaches a toothed belt with no mention of ribs.

Given the absence of ribs in either reference, and, since S-B only teaches teeth which are not analogous to ribs, there is no motivation to combine the references. Applicant requests withdrawal of this rejection and allowance of all claims.

4. Claims 11, 12, 23, 24 and 26 are rejected under 35 USC 103(a) as being unpatentable over "Sizing up V-ribbed Belts" in view of Robar et al. 6,633,159

Claims 11, 12 depend from claim 1. Claims 23, 24 depend from claim 13.

The Examiner has graciously indicated that Robar is only offered for the purpose of the teaching of utilizing an electric circuit connected to the tensile cord for measuring/detecting a tensile cord load.

As to claim 26, not all of the limitations are taught by the references, namely, the ribs having a rib angle of 90° is not taught. The argument as to why the 90° rib angle is not taught by Porter is presented in #3 above. Further, neither Robar nor Porter teaches a pulley having a ribbed profile.

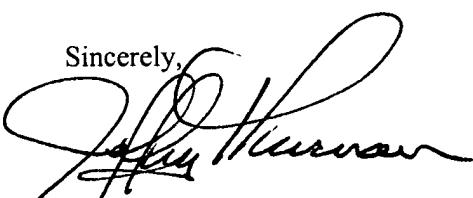
5. New Claims. New claims 33-38 distinguish over the prior art since it does not teach a fiber loaded belt as claimed in claims 1, 13, 26. New claim 39 distinguishes because the art does not teach a rib angle in the range of approximately 60° to approximately 120°.

V. Fees

Any fees payable for this response, including the fee for the RCE and the new claims may be deducted from deposit account 07-0475 in the name of The Gates Corporation.

Thank you for your attention to this case.

Date: Mar. 7, 2006

Sincerely,

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